

Connect from Qlik

Date: September 2016

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Intro

Qlik is a new player in the BI tools world, with a high growth since 2013

[On-line demos](#)

Nowadays has connectors for Hadoop Databases: [Hive](#) and [Impala](#)

But it doesn't have a Kylin connector

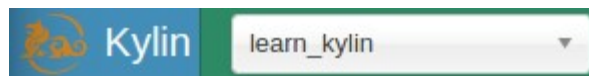
Used Software

- [Kylin v1.5.2](#)
- [Kylin ODBC v1.5](#)
- [Qlik Descktop v3.0.2.0](#)

Pre-requisites

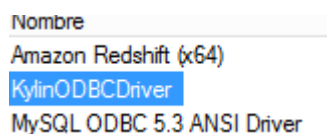
A) An instance of Kylin with a cube: [Quick Start with Sample Cube](#) will be enough

Can be checked it by looking the name of the cube:



B) Download, Install and configure Kylin ODBC Driver

1. [Install Kylin ODBC](#)
2. Add DNS System in Windows



3. Configure: User-name /Password: ADMIN / KYLIN



DSN Name: kylin

Protocol: http

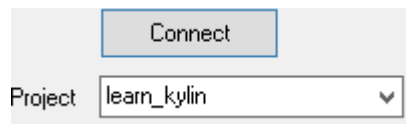
Server Host: 172.17.0.2

Port: 7070

Username: ADMIN

Password: •••••

4. Click Connect and Choose the project



Connect

Project: learn_kylin

Click on “Done”

Install Qlik:

Requires: ([System Requeriments](#))

- Windows 7 SP1 (64 bit) or 8.1 (64 bits)

Be careful with 64 bits and SP1, its mandatory

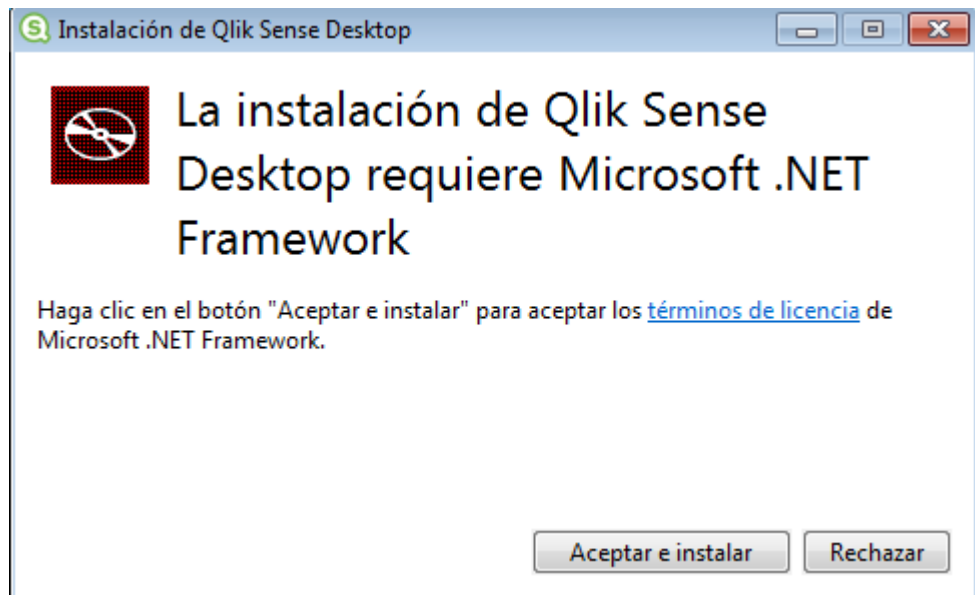
Has been tested it on Windows 2012 and didn't work

- Framework .Net 4.5.2
- 1.5 GB of free Disk Space

Note: The Language of Qlik Desktop is the same as your S.O. (cann't be changed)

My apologies for some pictures in Spanish language ;)

Launch the process **as Admin:**



It is recommended that you close all other applications before continuing.



Install

Installs all program features. Requires up to 1.5 GB of free disk space.

Install



3.0.2.0 has been installed successfully.

Issue 1: The Burn engine cannot run with an MBA under the .NET 4

(The [Qlik Forum](#) and msg txt wrongly suggests that the problem is about .NET)

In the log you will see:

: Error 0x81f403e8: The Burn engine cannot run with an MBA under the .NET 4 CLR on Windows 7 RTM with .NET 4.5.2 (or greater) installed.

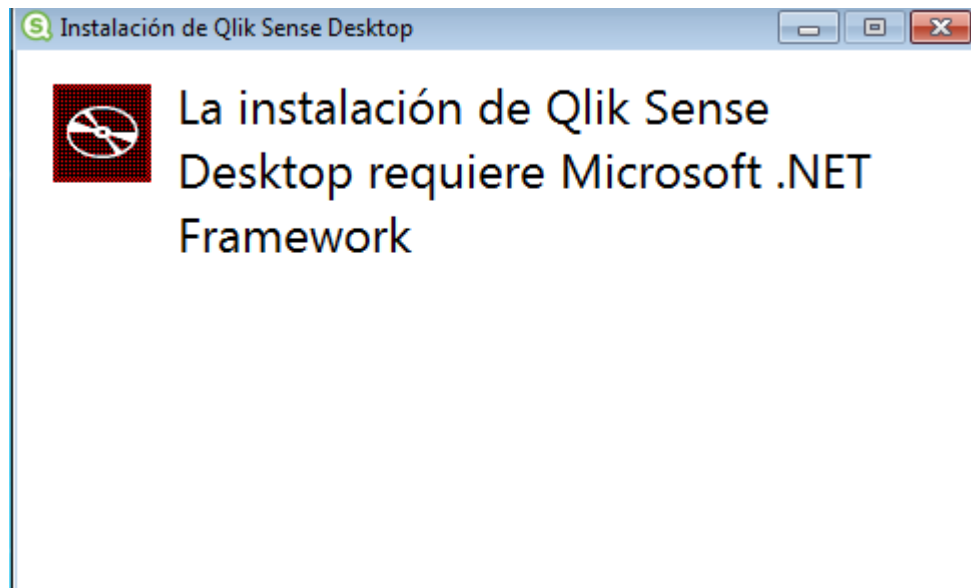
[0070:0A8C][2016-09-09T22:34:33]i000: Loading prerequisite bootstrapper application because managed host could not be loaded, error: 0x81f403e8.

[0070:0BC0][2016-09-09T22:34:33]i000: Setting numeric variable 'WixStdBALanguageId' to value 3082

Solution: Qlik requires SP1 of Windows 7 to install (this info Isn't in the official [System Requeriments](#))

[Download & Install SP1 64 bits](#)

Issue2: Microsoft .Net framework is required for Qlik Sense desktop setup



And you **don't have** a button "Accept and install"

I tried [Qlik Community 1](#) and [Qlik Community 2](#), but didn't work

Solution: delete in windows registry all references to Qlik

Create New App



Open Qlik Desktop

Create New App, With name Kylin



Now, the complex part is to import your Kylin data into Qlik

The failures has been documented because they are also important

Attempt 1: To add Data (fail)



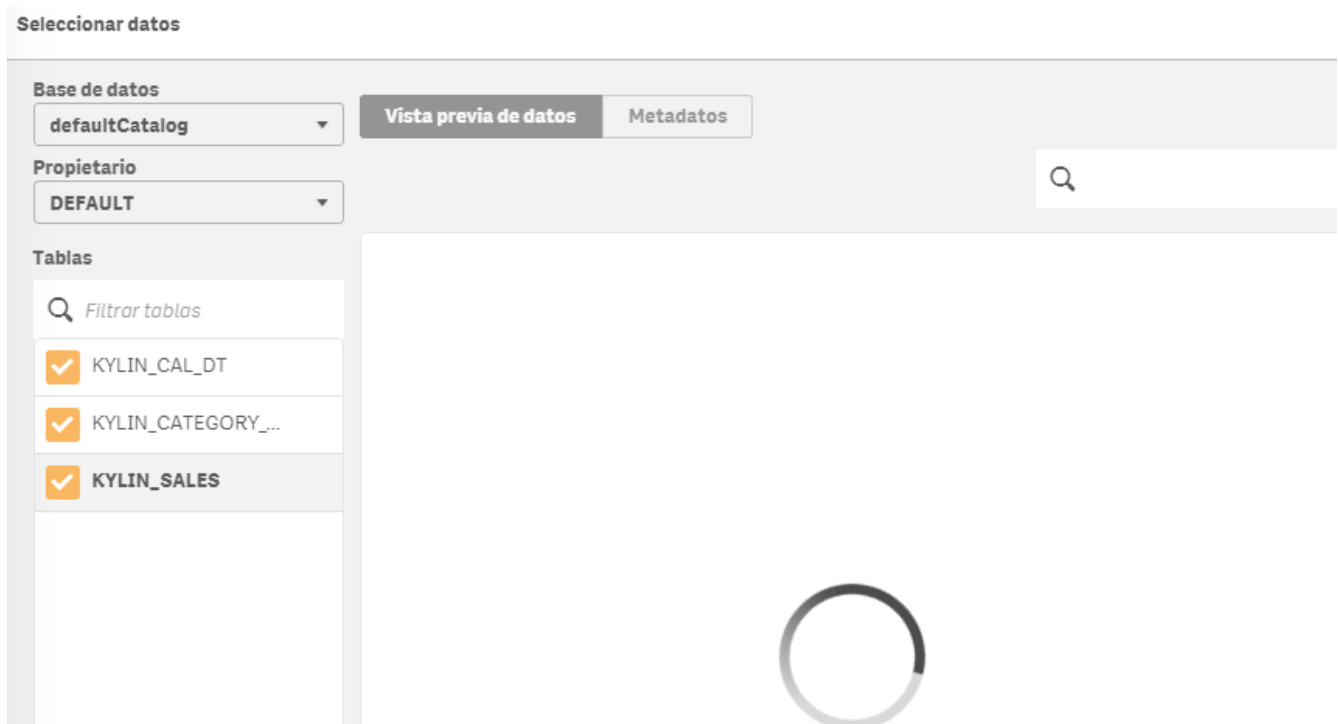
Añadir datos

Añada datos de un archivo, de una base de datos o de Qlik DataMarket.



The login and password can be empty

See the Kylin's tables:



Problem: The load **never finished** (I've Waited 20 minutes)

See 'Issue 1: Qlik Metadata'

Attempt 2: Add Data (fail)



The login and password can be empty

An click on:


Problem: The load **never finished**

See 'Issue 1: Qlik Metadata'

Attempt 3: Add Data (successful)

Configure our own data loader using a script is needed

Some configuration parameters from the connector created in “Attempt 2: Add Data (fail)” should be changed


Activate debug mode: 

And test the default script with  , The execution is execution step by step

List of changes:

- Change Dates format to YYYY-MM-DD

```
6 SET TimeFormat='h:mm:ss';  
7 SET DateFormat='YYYY-MM-DD';
```

- Add Connection String: You can add it directly with 

```
19 LIB CONNECT TO 'Kylin';
```

- Load columns & data from tables

First, test the query using Kylin UI:

New Query	Saved Queries
1	select * from KYLIN_CAL_DT

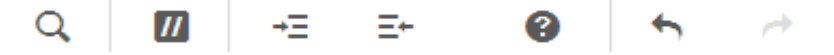
The result is: (731 rows)

Results (731)

WEEK_BEG_..Y	CAL_DT ▾
2012-03-03	2012-03-09
2013-05-05	2013-05-11
2013-12-08	2013-12-10

(Note: use  to copy the name of the columns)


The result must be similar to: (See “script_data_1.txt”, on gitHub)

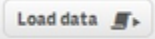


```
1 SET ThousandSep='.';
2 SET DecimalSep=',';
3 SET MoneyThousandSep='.';
4 SET MoneyDecimalSep=',';
5 SET MoneyFormat='#,##0,00 €;-#,##0,00 €';
6 SET TimeFormat='h:mm:ss';
7 SET DateFormat='YYYY-MM-DD';
8 SET TimestampFormat='YYYY-MM-DD h:mm:ss[.ff';
9 SET FirstWeekDay=0;
10 SET BrokenWeeks=1;
11 SET ReferenceDay=0;
12 SET FirstMonthOfYear=1;
13 SET CollationLocale='es-ES';
14 SET MonthNames='ene;feb;mar;abr;may;jun;jul';
15 SET LongMonthNames='enero;febrero;marzo;abr';
16 SET DayNames='lun;mar;mié;jue;vie;sáb;dom';
17 SET LongDayNames='lunes;martes;miércoles;ju';
18
19 LIB CONNECT TO 'Kylin';
20
21 LOAD WEEK_BEG_DT,CAL_DT;
22 select * from KYLIN_CAL_DT;
```

Test the import script:

Save Script: 

Out of debug mode: 

Now, “Load data” button must be enabled: 

The Output must be similar to: (check that the row count is the same as in the Kylin UI)

Tiempo transcurrido 00:00:01

Ya ha comenzado a cargar datos

Conectando a Kylin

Conectado

KYLIN_CAL_DT

Líneas recuperadas: 731

App guardada

Completado con éxito

0 error(es) forzado(s)

0 clave(s) sintética(s)

To Import other table (fact table) only need to add

```
LOAD PART_DT,LEAF_CATEG_ID,LSTG_SITE_ID,LSTG_FORMAT_NAME,PRICE,  
SELLER_ID,MIN_PRICE_,MAX_PRICE_,COUNT_, COUNT_DISTINCT_SELLER_ID_,  
COUNT_DISTINCT_LSTG_FORMAT_NAME_;  
select * from KYLIN_SALES;
```

Data can be selected under an “alias”:

[CAL_DT]:

```
LOAD WEEK_BEG_DT,CAL_DT;
```

```
select * from KYLIN_CAL_DT;
```

The final load scripts are in “script_data_2.txt”, on gitHub

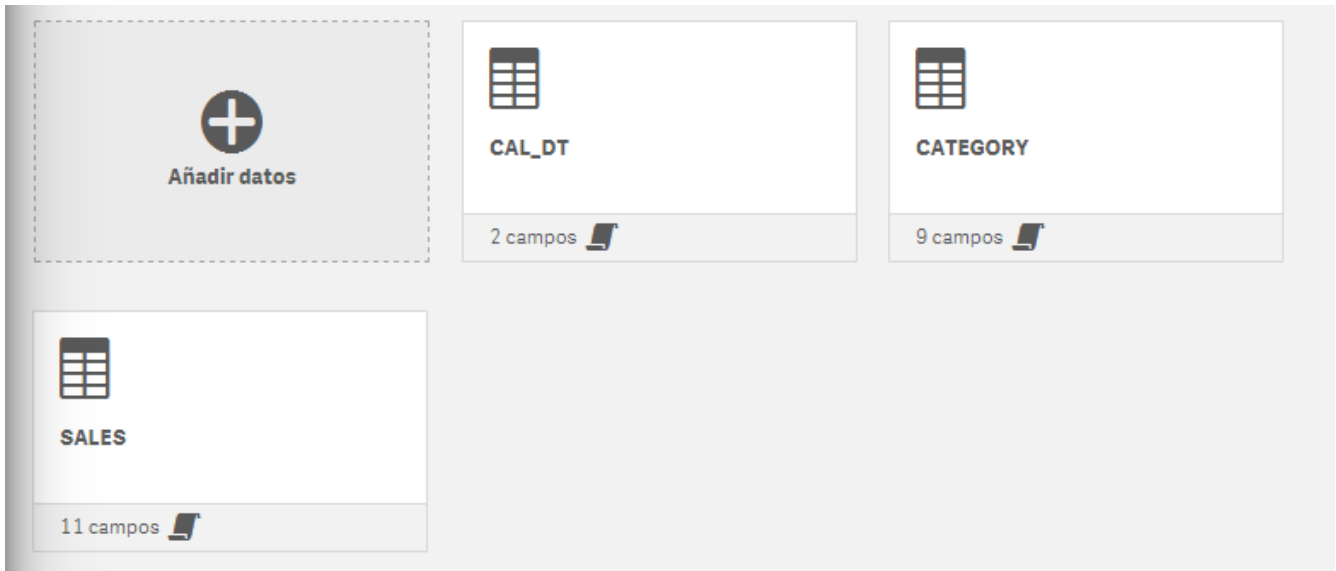
Used hardware: a Laptop with HBase, Kylin, Hive .. inside a Docker Container, and Qlik is inside a Virtual Box, the performance to ingest data has been good, only 2 sec for 3 Tables and 10K Rows

Tiempo transcurrido 00:00:02

Ya ha comenzado a cargar datos

```
Conectando a Kylin
Conectado
CAL_DT << KYLIN_CAL_DT
Líneas recuperadas: 731
SALES << KYLIN_SALES
Líneas recuperadas: 9,840
CATEGORY << KYLIN_CATEGORY_GROUPINGS
Líneas recuperadas: 144
```

See all ingested tables in “[data manager](#)”:  >  Gestor de datos



The screenshot shows the 'Gestor de datos' (Data Manager) interface. It features a 'Añadir datos' (Add data) button with a plus icon. Below it, three table cards are displayed: 'CAL_DT' with 2 campos, 'CATEGORY' with 9 campos, and 'SALES' with 11 campos. Each card includes a grid icon and a small document icon next to the field count.

NOTE: If you try to see data of one table: Click in one, **you aren't able to see data from one table** (below)

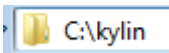
“Data tables defined in the load script are not managed in Data manager”



Esta tabla se añade usando el script de carga de datos, y sólo puede visualizarse en el visor del modelo de datos tras haber cargado los datos.

Issue 1: Qlik Metadata

The log files of ODBC kylin are in:



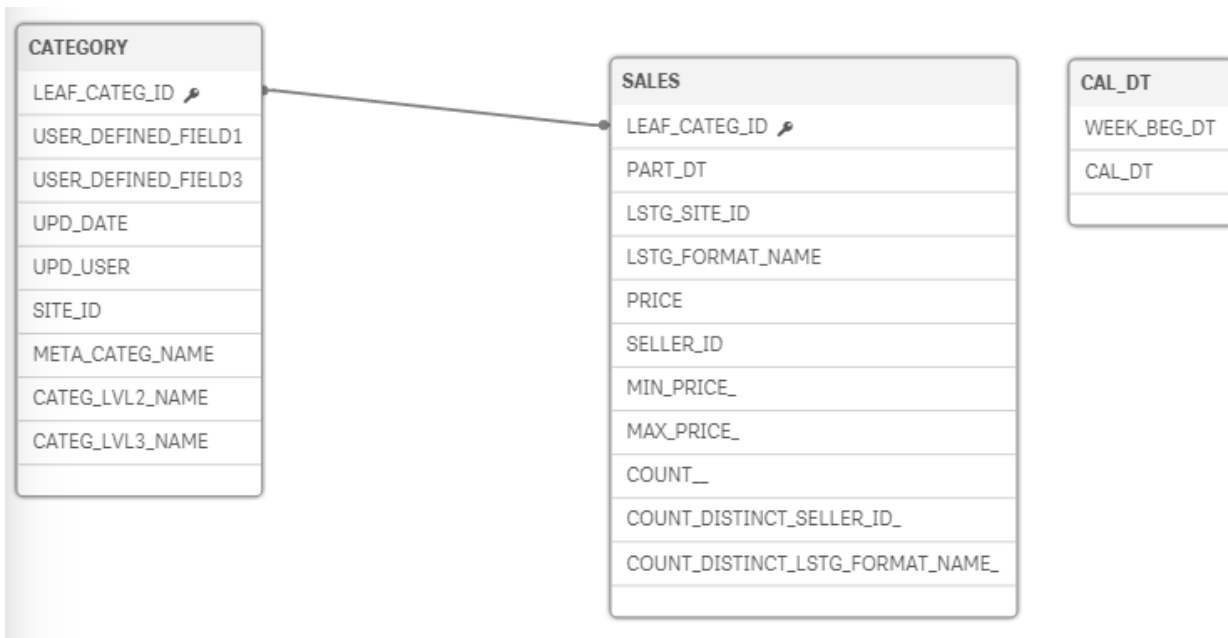
When Attempt 1 and 2 are used, see some errors can be showed: **SQLGetInfoW**

```
[FATAL] [2016-09-10.14:01:08] _SQLCopywCharDataW - No holder for data size
[FATAL] [2016-09-10.14:01:08] In Shipping mode, Skip popping up window...
[FATAL] [2016-09-10.14:01:09] _SQLCopywCharDataW - No holder for data size
[FATAL] [2016-09-10.14:01:09] In Shipping mode, Skip popping up window...
[FATAL] [2016-09-10.14:01:09] _SQLCopywCharDataW - No holder for data size
[FATAL] [2016-09-10.14:01:09] In Shipping mode, Skip popping up window...
[FATAL] [2016-09-10.14:01:09] _SQLCopywCharDataW - No holder for data size
[FATAL] [2016-09-10.14:01:09] In Shipping mode, Skip popping up window...
[ERROR] [2016-09-10.14:01:09] Function Missing!!! SQLGetInfoW, Field: 89, DataPtr:
```

Define Table associations

([Managing data associations](#))

You can see the actual table associations in:



But this association isn't correct, see the correct ones in Kylin UI > Model designer > Data Model:

Fact Table DEFAULT.KYLIN_SALES

Lookup Tables				Filter ...
ID	Table Name	Join Type	Join Condition	
1	DEFAULT.KYLIN_CAL_DT	inner	DEFAULT.KYLIN_SALES.PART_DT = DEFAULT.KYLIN_CAL_DT.CAL_DT	
2	DEFAULT.KYLIN_CATEGORY_GROUPINGS	inner	DEFAULT.KYLIN_SALES.LEAF_CATEG_ID = DEFAULT.KYLIN_CATEGORY_GROUPINGS.LEAF_CATEG_ID DEFAULT.KYLIN_SALES.LSTG_SITE_ID = DEFAULT.KYLIN_CATEGORY_GROUPINGS.SITE_ID	

How can be changed? :

In "data manager": > Gestor de datos > Associations

In true, it can't be changed because

"Data tables defined in the load script are not managed in Data manager"

Create dataSheets

There is only one way to add data from load script into a sheet:

In "data manager": > Gestor de datos > Load data > Edit Sheet



See all Columns in: , can be classified like Dim or measures with Right click

Also, define a Hierarchy in Dim:

Crear nuevas dimensiones

☐ Única ☒ Jerárquico

Filtrar por tabla

Todas las tablas

Q *Buscar*

CAL_DT

CATEG_LVL2_NAME

CATEG_LVL3_NAME

COUNT__

COUNT_DISTINCT_LSTG_FO...

COUNT_DISTINCT_SELLER_I...

LEAF_CATEG_ID

LSTG_FORMAT_NAME

LSTG_SITE ID

Campo:

CATEG_LVL2_NAME

CATEG_LVL3_NAME

fx
fx
fx

Nombre:

Categ

Descripción:

Etiquetas:

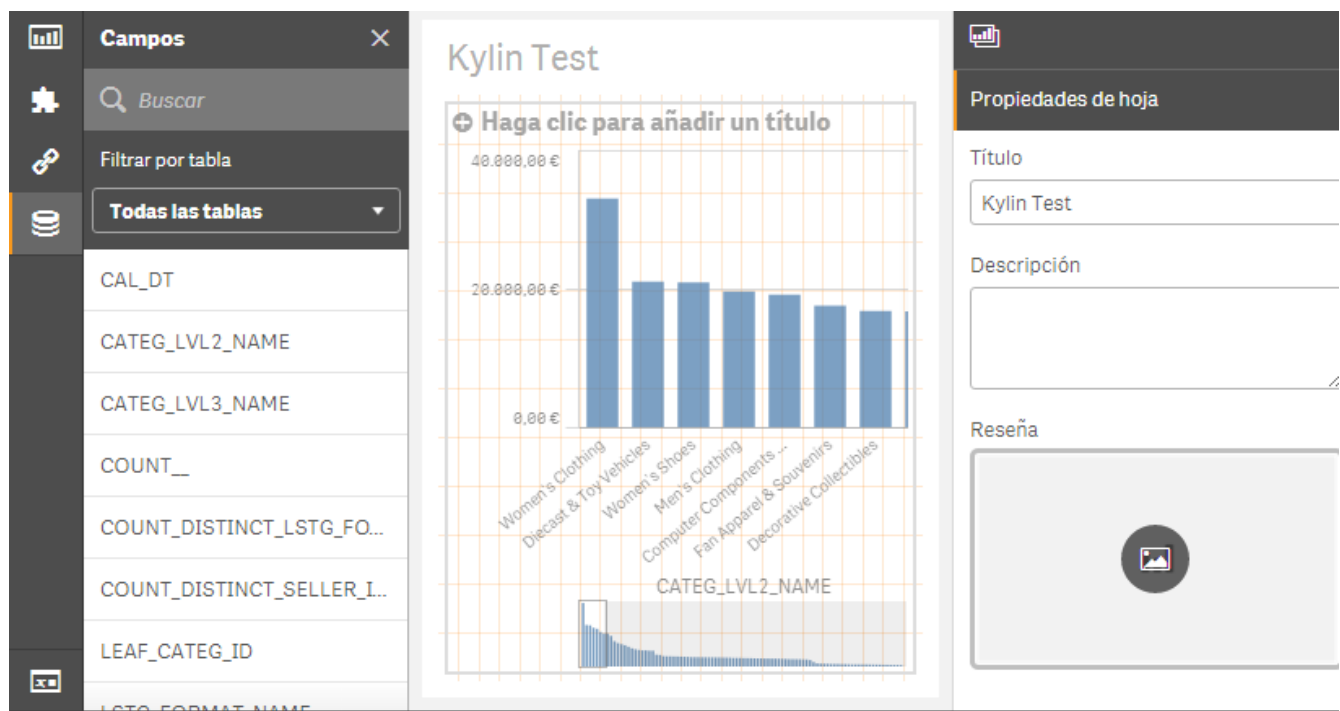
+

Añadir dimensión

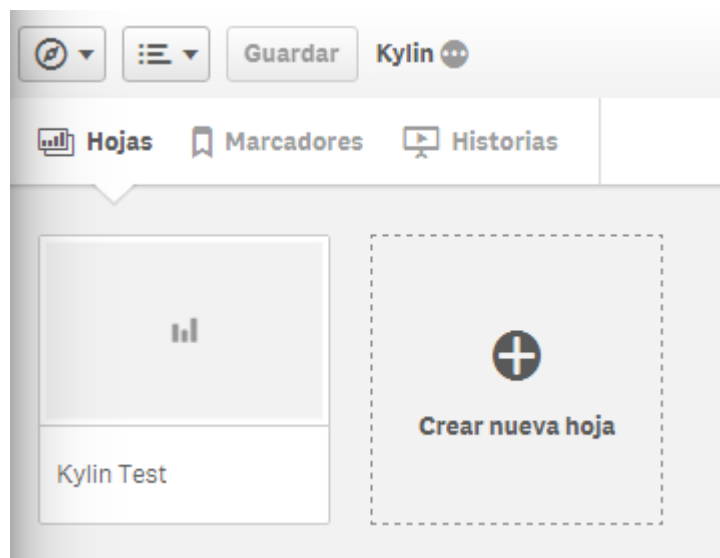


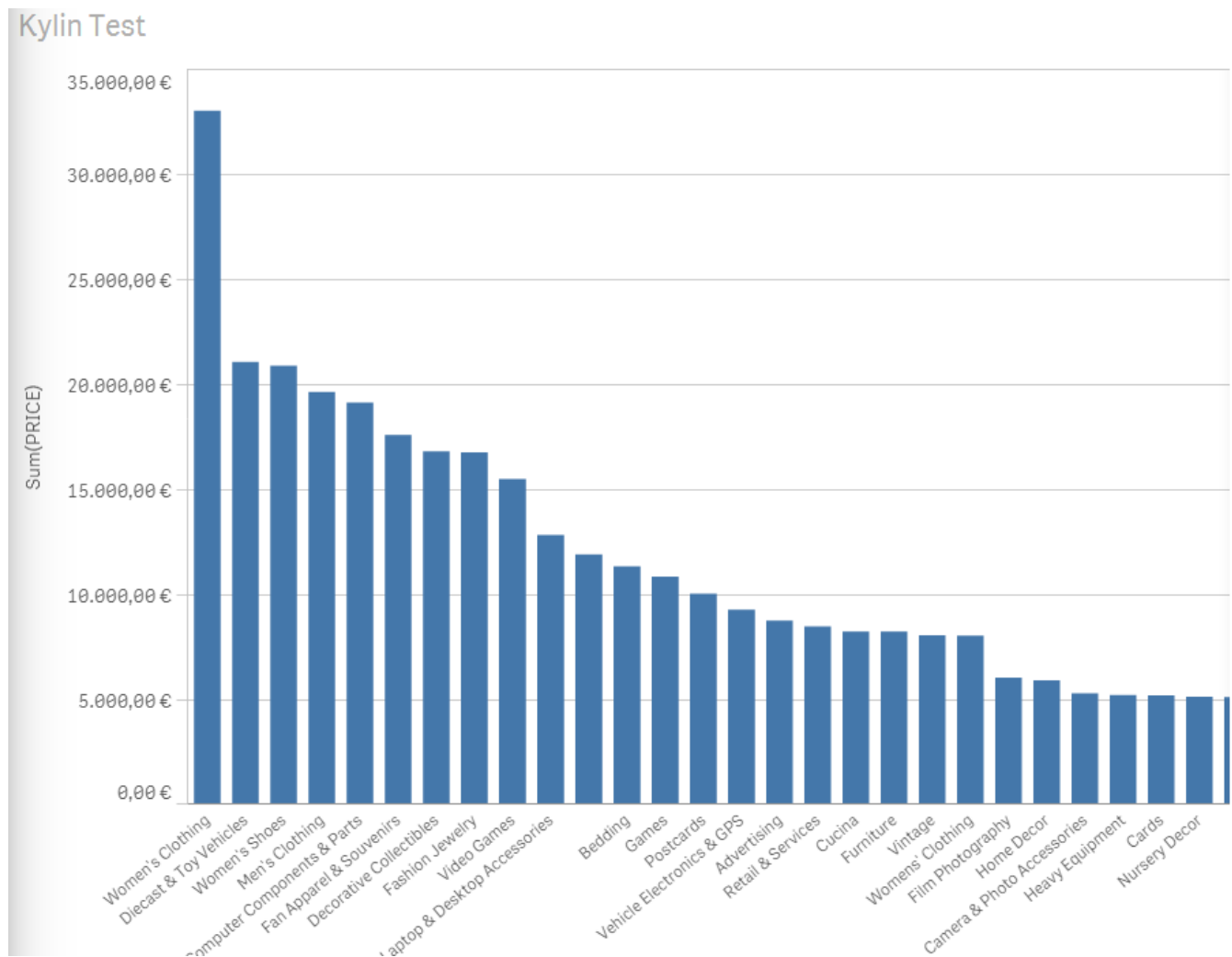
First, add graphic elements from : (Drag and drop)

Second: Add Dim and Measures (Drag and drop)



View the result from main menu:





Future Work

- Load data using “**load script**” is a workaround to read data from Apache Kylin, but like the data isn't controlled by **Data Manager** you can't use the preview of data ([manual reference](#)) ([Qlik Community](#))
- Same problem with “**associations**”, can't be managed/changed them because this data isn't managed by **Data Manager**

This problems means that if the automatic associations aren't correct, **the data results will be false**

For any suggestions, feel free to contact me

Thanks, Alberto

Otras soluciones

[QlikView Connector JDBC: Ejemplo Cassandra](#)

[JDBC Connector for Qlik Sense](#)

[JDBC Connector for QlikView](#)

[Demo Version](#)